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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,427	02/27/2004	Paul Alistair Thomas	684-011708-US (PAR)	6990
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PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824			EXAMINER EKONG, EMEM	
			ART UNIT	PAPER NUMBER
			2617	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/788,427

Applicant(s)

THOMAS ET AL.

Examiner

EMEM EKONG

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 05/31/2007 have been fully considered but they are not persuasive.

The Applicant argues that Wu fails to disclose a bendable keymat having a elastic properties, however, the applied reference discloses hard plastic casing as also disclosed by the applicant (par. 72). The Examiner believes that plastic has an elastic property and therefore is bendable. Wu further discloses that the tabs are resiliently flexed (see par 76-77), which indicates that the tabs are made of plastic that is flexible, therefore, Wu discloses applicant's limitation of "bendable keymat having elastic properties that force the lips into the plurality of indentations on the cover to attach the edges of the keymat to the cover." The Applicant further argues that Wu fails to disclose, "the cover includes a plurality of apertures through which the plurality of pressure transmitters pass to activate the plurality of key switches," however, Wu discloses on the keycap module 12 (see fig. 9), plurality of keycap holding mechanism 14 for the keycap 15, the electrical circuitry membrane/PCB 13, a bottom holding plate 17, upper and lower enclosure halves 18 and 19, which allow the key-actuating mechanism 16 to be connected to the keycaps 15 of the key module 12 mechanically (see par. 71), therefore, Wu discloses the applicant's limitation above.

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Therefore the argued limitations are the same as disclosed by the reference or the limitations are written broad such that they read on the cited art, rejections, are maintained as repeated below.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 4-7, 9-12, and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. 2006/0165465 A1 to Wu.

Regarding claim 1, Wu disclose a communication device comprising a bendable keymat, a cover (see figure 9, upper enclosure, see fig. 12 key module 12), and a substrate located within the cover comprising a plurality of key switches (see figure 15, membrane 13a), wherein, said keymat comprises a plurality of lips (see figure 3, par. 76, tabs 25, see fig. 12 hooks 825) located at and extending outward from edges of said keymat toward a rim of the cover and a plurality of pressure transmitters (see figure 9, keycap 15) extending from an interior surface of the keymat, and said cover comprises a plurality of indentations (i.e. grooves 26, see fig. 12, slot 826) configured to receive said plurality of lips (par. 76), wherein the bendable keymat comprises elastic properties that force the lips into the plurality of indentations on the cover to attach the edges of

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the keymat to the cover (pars. 76-77, if the tabs can be resiliently flexed then the keymat comprises elastic properties), and said indentations are located at edges of a recess for removably mounting said keymat (see figure 3, par. 76, grooves 26), the cover also includes a plurality of apertures (see figures 3, 9, and par. 75, i.e. key actuating mechanism 16, rubber dome 7) through which the plurality of pressure transmitters pass to activate the plurality of key switches.

Regarding claim 6, Wu disclose a cover (see figure 9, upper enclosure) for a communication device comprising a recess (see figures 4, i.e. keycap bay 111) for receiving a keymat comprising a plurality of lips (see figure 3, par. 76, tabs 25) extending outward from edges of the keymat, the cover further comprising a plurality of indentations located at the edges of said recess for receiving said plurality of lips (see figure 3, par. 76, grooves 26) and attaching the edges of the keymat to the cover, where elastic properties of the keymat force the lips into the recesses (pars. 76-77, if the tabs can be flexed then the keymat comprises elastic properties), and a plurality of apertures (see figures 3, 9, and par. 75, i.e. key actuating mechanism 16, rubber dome 7) through which a plurality of pressure transmitters of the keymat pass to activate a plurality of key switches located within the cover.

Regarding claim 11, Wu disclose a bendable keymat for removable mounting on a cover of a communication device (see figure 3), comprising lips (see figure 3, par. 76, tabs 25) located at and extending from edges of said bendable keymat configured to extend outward toward a rim of the cover and insert into indentations of said cover (see figure 3, par. 76, grooves 26), wherein the bendable keymat comprises elastic

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properties that force the lips into the indentations on the cover to attach the edges of the keymat to the cover (pars. 76-77, if the tabs can be flexed then the keymat comprises elastic properties), the bendable keymat further comprising a plurality of pressure transmitters (see figures 3 and 9, keycap 15) extending from an interior surface of the keymat configured to pass through apertures of the cover and to activate key switches located within the cover(see figure 9, and par. 75, i.e. key actuating mechanism 16, rubber dome 7).

Regarding claims 2, 4, 5, 7, 9, 10, 12, 14, 15, Wu further teaches a communication device wherein said keymat comprises one or more guiding recesses (edges 113), and said cover comprises one or more corresponding guiding pieces (guide rails 114) (figures 4, 8, and pars. 79, 84).

Regarding claim 16, Wu further teaches a communication device wherein said keymat is being molded in one piece (Figures 3, and 8, shows it is molded as a piece, key module 12).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 3, 8, 13 are rejected under 35 USC 103(a) as being unpatentable over Wu in view of U.S. Pub. No. 2003/0119543 A1 to Kfoury et al. (Kfoury).

Regarding claims 3, 8, 13, Wu discloses the device of claims 1, 6, and 11, comprises one or more guiding pieces and recesses. However fails to disclose guiding pieces that are arranged in direct connection to one or more of said plurality of lips

In an analogous art, Kfoury teaches guiding pieces that are arranged in direct connection to one or more of said plurality of lips (Figure 4, 5; paragraph [0032]-[0033]; Kfoury teaches that that the key module is successfully assembled to the body by the

engaging members including grooves, rails, contact pad and receptacle respectively aligned and engaged, lined up, or guided to the corresponding members thereby the elements are acting as guiding elements for a successful operation of inserting the key modules into the device body). Therefore, it would have been obvious to one ordinary skill in the art at the time of the invention was made to modify Wu's communication device to include one or more guiding recesses are arranged in direct connection to one or more of said plurality of indentations such as taught by Kfoury as an alternative for the same purpose of aligning the interchange-able the process of attaching, connecting, or securing said keymat to said cover.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMEM EKONG whose telephone number is 571 272 8129. The examiner can normally be reached on 8-5 Mon-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571 272 7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EE  
07/22/2007

  
LESTER G. KINCAID  
SUPERVISORY PRIMARY EXAMINER